

ISD News and Views

STATE DOCUMENTS COLLECTION

Volume 10 No. 12

JUN 1 1993

Published by the Information Services Division

Table of Contents

Computer Training Services	1
Term Contract Status	1
Microcomputers	1
Microcomputer Maintenance	2
Laser Printers	2
Management Information Systems Services	3
Mainframe	3
SAS Mainframe Users	4
Copy Main Frame Data Set	
Text to WP using	
CLIPBOARD	4
Microcomputer	5
Novell Netware Training and	
CNE Tests	5
Netware 3.11 Classes	5
Netware 3.11 CBT	
(Computer	
Based Training) ..	5
Netware 3.11 Video	
Training	5
Netware 4.0 Training	5
CNE Tests	5
MS DOS 6.0 - Who Needs It?	
(And Who Doesn't)	6
Techtalk	7
Using @DSUM in 1-2-3	7
First Look - Lotus Improv for	
Windows 2.0	7
Calendar of Events	8
End Notes	8
Submit Articles	8
ISD Network Assistance Center	
444-2000	8
Training Information	9
Training Calendar	11
Data Network/Mainframe Classes	12
Microcomputer Classes	13
Word Processing Classes	15
Spreadsheet Classes	15
Database Classes	16

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59601

Computer Training Services

A request for proposal for computer training services was issued in January of this year. The evaluation process has been recently completed and contract negotiations are currently under way.

The anticipated date for the new contract to take effect is July 1, 1993. Through the month of June the same procedure should be followed that has been published in the Training Information section of News and Views.

Further information on the training services contract will appear in the July issue of News and Views.

Term Contract Status

Microcomputers

The three microcomputer term contract vendors have been busy reducing prices and adding new products. Price list updates have been distributed to state agencies via electronic mail. All new products on the lists have been approved, contingent upon vendor certification of compatibility. Agencies should be aware that ISD has not rigorously tested many of these products. We will work with you if there are compatibility problems that need to be resolved with the vendor. New addenda will be distributed to all agencies the first part of this month.

There has been a couple of personnel and address changes at Wyle and Dell. Replacing Patsy Dyal at Wyle is Steve Priebeal. The latest Dell representative is Larry Wayne, and second

RECEIVED

dary contact is Doug Roberts. Here is a summary of term contract vendor contacts:

Digital/Wyle

Send orders to:
Wyle Laboratories
Attn: Steve Prieбал
15360 Barranca Parkway
Irvine, CA 92718
FAX: (714) 753-9988

Contact Steve for availability, delivery times, and technical questions. His number is (800) 356-9953. For pricing, problems, or other term contract issues, contact Rob Leavitt at 442-1342.

Dell

Send orders to:
Dell Computer Corporation
9505 Arboretum Blvd.
Austin, TX 78759-7299
Attn: Larry Wayne
FAX: (800) 365-5329

Contact Larry for availability, delivery times, and price quotes. His number is (800) 274-7799 x7589. If Larry is unavailable, contact Doug Roberts at x3270. For technical questions, call David Hutto at x2640.

Computerland/IBM

Send orders to:
Computerland of Helena
25 S. Last Chance Gulch
Helena, MT 59601
Attn: Mike Price
FAX: 443-1212

Call Mike for contract, price, and availability questions. For technical questions, call Patrick O'Leary. Both can be reached at 443-3200.

Computerland/HP

Send orders to:
Computerland of Western Montana
800 Kensington Avenue
Missoula, MT 59801
Attn: Curtis Jacobson
FAX: 329-7650

Call Earl Kent at 329-7660 for technical questions. Backup is Curt. For problems with or-

ders, availability, price, lead times, etc. first call Earl, and Melissa Wolter is the backup.

The microcomputer term contract was originally set up to purchase computers. It is **mandatory** that all microcomputers are purchased from one of the three microcomputer term contract vendors. You are encouraged to order the following items that were added to the term contracts for convenience, but it is not mandatory to do so: tape drives, tapes, cd rom drives, UPS's, laptop computers, modems, cables, operating systems, and non-laser printers. Call Brett if you have any questions (0515).

If you would like to be on the price distribution list, or have any questions concerning the latest prices or products, please call Brett. Term contract price lists will be distributed, upon request, through Zip-Mail.

Microcomputer Maintenance

A new contact person at IBM has been announced. Her name is Cheryl Taylor, and her number is 444-5019. Call her for price quotes for products not currently on the maintenance term contract.

To place equipment under maintenance, fill out the Maintenance Request Form and attach it to a purchase order. Send it directly to:

IBM
Attn: Cheryl Taylor
100 N. Park Ave.
Helena, MT 59601.

If you should have equipment failure and require maintenance, call: 800-IBM-SERV (1-800-426-7378). For authorized dealers, call 800-772-2227. For customer service, call 800-426-8741.

If you have any questions about the maintenance contract with IBM, please call Brett. The latest version of the maintenance contract and/or the maintenance request form will be sent upon request.

Laser Printers

New products and price changes have been incorporated into the Hewlett Packard laser printer term contract. The latest price list will

be sent via electronic mail, and a new addendum will be issued soon. Call Brett for the latest prices and products, or with questions about the term contract. For technical questions, call Computerland at 329-7660.

Management Information Systems Services

Responses to the request for proposals for the management information systems (MIS) services term contract have been evaluated. The contract is scheduled to go into effect this summer. This term contract will provide additional MIS services to state agencies. For example, term contract programmer/analysts could be utilized for a large programming project for which you have insufficient staff. This term contract also will make available a consultant to assist with administrative and staff support activities. If you are interested in this service and would like more information, please call Brett Boutin (444-0515).

Mainframe

Important Information for all CICS and IDMS Users.

In past issues of News and Views, you have been reading articles about new software products that have been installed on the ISD mainframe computer. Two new products are CICS-Juggler and Assist/GT. CICS-Juggler allows users to have multiple applications active at the same time, while Assist/GT allows you to connect help windows and user manuals to your current applications. These software products reside under CICS control, therefore IDMS/DC systems must also reside under CICS control to take advantage of this functionality.

Consolidation of IDMS/DC into CICS will simplify the online access requirements for mainframe end-users as both CICS and IDMS/DC applications will be accessible from CICS. In order to make this process as seamless as possible we have created a MENU using Assist/GT that will list the applications you are authorized to use. Many applications, like the Disk Authorization System, allow access authority to all users. Therefore, several application

entries will appear on your MENU that you are authorized for but perhaps don't use. A customization entry will be on the MENU allowing each user to remove unwanted entries. The MENU will be automatically displayed upon entry into CICS and each time you exit a CICS or IDMS/DC application.

We will be contacting DP Managers in each agency over the next few months to coordinate and accomplish the following:

- All production users will be converted to use SuperSession.
- All production users will use CICS (CICSPROD) on the SuperSession menu. Entries for IDMS/DC systems can be deleted from the SuperSession menu. (ie. IDMSR002, IDMSR003, IDMSR004, IDMSR005, etc.)
- Users who wish to use CICS-Juggler can have it automatically start upon entry into CICS or can manually start it by selecting START JUGGLER from the CICS/IDMS MENU FUNCTIONS option on the MENU.

- All production user ACF profiles will be set by Security Officers to automatically start the MENU process.

CH CZ0040 CICSTRAN(MENU) - start MENU

CH CZ0040 CICSTRAN(JUGO) - start Juggler then MENU

- Users who currently are required to enter an account number on the CICS signon screen should leave the transaction field blank. By default you will be presented with the MENU from your user ACF profile.
- Each application selection on the MENU is sequentially numbered. To access an application, simply enter the corresponding number and press Enter.
- If CICS is not a valid option on your SuperSession main menu simply enter an 'L' on the SuperSession main menu Command Line and scroll through the applications listed until CICSPROD appears in the selection window. Follow the instructions on the screen to add CICSPROD to your SuperSession main menu.

Your actual Assist/GT MENU will be similar to the following:

*MENU(MENU000) STATE OF MONTANA 05/20/93

Selection	Please Select an Option
1	AUDITOR WARRANT SYSTEM WANTS
2	SBAS OEE 1099 PAY99
3	COMPUTER BILLING SYSTEM CBST1
4	DISK AUTHORIZATION CSD02
5	LEGISLATIVE BILL STATUS LEG1
6	CUSTOMIZE THIS MENU
7	CICS/IDMS MENU FUNCTIONS
8	DISPLAY/UPDATE ACCOUNT NUMBER
9	EXIT THIS MENU - RETURN TO CL/SS

Command ==>
F1=Help F3=End F7=Bwd F8=Fwd

Any questions or comments about this article, please contact Glen Stroop at ext. 2910 or Gary Poepping at ext. 2811, in the Application Support Section.

SAS Mainframe Users

ISD will be upgrading SAS from release 5.18 to version 6.07. The conversion will take place on July 1st. If you are currently using SAS on the mainframe you will be required to convert your SAS programs to the new release. The following JCL will convert you SAS 5.18 files to version 6.07. (If you are using FSP additional changes will be required.)

```
//CX0074SS JOB (*****.PS),0074.S1.LName,
//          CLASS=A,MSGCLASS=9
//          * THIS JOB CONVERTS SAS 5.18
//          * LIBRARIES TO 6.07 LIBRARIES.
//          * NO FURTHER CONVERSION IS NECESSARY
//          * FOR SAS DATASETS!!!!
//SASCONV EXEC SAS607
//FT11F001 DD SYSOUT=*
//FT12F001 DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//NEWV6 DD DSN=FOO.PDS.Name.SASLIB,
//        DISP=(NEW,CATLG),UNIT=SYSDA,
//        SPACE=(TRK,(20,2))
//SYSIN DD *
//LIBNAME OLDV5 'FOO.PDS.OldName.SASLIB';
PROC VSTOV6 IN=OLDV5 OUT=NEWV6;
RUN;
//
```

This JCL can also be copied from CX0074. TSOLIB.DATA(SASV5V67). The SAS 5.18 license will expire the end of July. To temporarily extend using SAS 5.18 you can do the following. Your current JCL execute statement specifies SAS, this will need to be modified to SAS518. This modification will let your SAS518 programs to continue functioning properly. On July 1, when you execute SAS you will be running version 6.07. If you have any question or concerns regarding the necessary program changes please contact Jerry Kozak, EUC at 2907 or Irv Vavruska at 2858.

Copy Main Frame Data Set Text to WP using CLIPBOARD

Have you ever wanted to use text from a Main Frame Data Set in a PC document, but didn't want to go to all the work of retyping it? If you have Windows, you can extract any Super-session screen and paste it into a Word Perfect document with a few easy steps.

Begin by placing the cursor where you want the text to appear inside your WP document. Next press the ALT+ESC keys to switch out of WP. Open your Main Frame session and bring up the text you want to copy. With your Mouse, start in the upper left of the screen and while holding the left mouse key down, drag the mouse down and across the text to highlight the block you want to copy. If you want more than one screen, you have to do them one at a time. With the desired text highlighted click on the EDIT selection of the Menu Bar, then click on COPY. This will copy the selected text to the CLIPBOARD. Minimize the session and return to the Windows WP ICON. Click on the WP ICON just once so the POP-UP window appears. Click on EDIT, and then PASTE. A message will appear that pasting is in progress. At this point you can double click on WP to restore the document and actually watch the text as it is pasted in, or you can double click back into your session and get the next screen ready to copy. You will have to edit the text in WP if the pasted block was wider than what your margins are set at. When the text is cut it fills each line with spaces, then WP inserts soft returns which makes the extra lines. Each time the CUT (EDIT - COPY) is performed it will overwrite what was previously in the Clipboard so you don't have to clear it. Also remember that when paging in the Main Frame Session the bottom line becomes the top line of the next page, so be careful what you highlight to avoid duplicate lines.

Microcomputer

Novell Netware Training and CNE Tests

The End User Computing section of the Information Systems Division provides a variety of Novell Netware training options including classes, computer based training (CBT), and video training. If you need information concerning ISD's Netware training or Certified Netware Engineer (CNE) training, have your data processing manager or training coordinator contact Sue Skuletich of End User Computing at 444-1392. General Netware course information is also available by fax directly from Novell. Dial 1-801-429-5363 and follow the instructions to select the information you want faxed to you.

Netware 3.11 Classes

For those agencies who are having employees complete the CNE process, ISD will continue to schedule additional on-site Netware CNE classes as demand warrants.

Netware 3.11 CBT (Computer Based Training)

"Networking Technologies", "Netware 3.11 System Manager", and "Netware 3.11 Advanced System Manager" CBT are available on the state Novell network at no charge to State agencies that run "Windows". Contact Irv Vavruska of End User Computing (2858) to obtain instructions on connecting to the network modules. For those agencies that do not run Windows, we expect to have arrangements made by mid-June to provide access to the CBTs in a private study area somewhere on or near the capitol campus. ISD has purchased a single-user license for each module, so only one person may be actively using any one module at a time, but the software will keep track of the progress of multiple users over any period of time.

These 3 modules, when used by themselves, provide basic training for users in Novell Networking and administration, and should suffice for users not involved in CNE certification. For personnel working toward Certified Netware Engineer certification it is STRONGLY sug-

gested that the associated student self-study kits be purchased for use concurrently with the CBT's. Prices for the student kits range from \$300 to \$500 each, and each agency is responsible for purchasing its own student kits as needed. ISD currently orders its copies of student self-study kits from:

MicroWare Distributors
10300 SW Allen Blvd.
Beaverton, OR 97005
(800) 444-7300

The student self-study kits that correspond to the 3 CBT modules above are:

kit #200 Networking Technologies - Novell
part # 883-001310-001
kit #505 Netware 3.11 System Manager -
Novell part # 883-001402-001
kit #515 Netware 3.11 Adv. System Manager
- Novell part # 883-001404-001

Netware 3.11 Video Training

ISD is in the process of purchasing video-based Netware 3.11 training that is NOT geared specifically to CNE training. This series of videos should provide sufficient training for state employees who need to administer Novell networks, but are not going to pursue CNE certification. These videos and workbooks will be made available to state agencies on a check-out basis. Availability will be announced in future issues of News & Views.

Netware 4.0 Training

Netware 4.0 training will also be available soon. ISD is in the process of scheduling Netware 4.0 classes, and will also purchase Netware 4.0 CBT and/or videos as soon as they are available.

CNE Tests

CNE tests from Drake Testing Services are now available locally in Helena. Call 1-800-RED-EXAM to schedule CNE testing with Drake. ISD is also making available the Novell Netware CNE Assessment Test diskette to all interested agencies. This diskette provides an informal assessment of a user's understanding of material covered in each of the CNE courses. Contact Sue Skuletich of End User Computing by E-Mail or phone (1392) to obtain your copy of the assessment disk, or you can copy it directly from the \GUEST\CNEPTST\ directory

on the backbone Novell server (ISDNOVS01) using the GUEST account.

MS DOS 6.0 - Who Needs It? (And Who Doesn't)

Microsoft recently released its latest incarnation of MS-DOS - version 6.0. It has shipped nearly 3 million copies in less than 3 months on the market, so it is obviously popular with the computing masses. Yet there is an undercurrent of complaints being reported in the trade press. ISD has tested DOS 6.0 for nearly a month and has the following findings to report.

What's New In MS-DOS 6.0

The most widely talked about new features of MS-DOS 6.0 are 4 utilities that are basically built-in to MS-DOS 6.0. **DoubleSpace** is a file compression utility that effectively doubles (or nearly doubles) the amount of data that can be stored on a hard drive. It accomplishes this feat through the use of sophisticated real-time compression algorithms. On a 286 class pc or better you do not notice any significant performance degradation, but it does take 43K of memory to run. (On 386 class machines most of that 43K can be placed in Upper Memory Blocks, if available). There have been complaints from some users that DoubleSpace causes disk failures, lost data, and other problems, but Microsoft contends that the problems are limited to non-standard pc's and set-ups. (LATE BREAKING NEWS: It appears that most of the problems associated with DoubleSpace failures are actually due to Microsoft mistakenly making "lazy-write ON" the default installations for SmartDrive 4.1, the version of SmartDrive that is installed with DOS 6.0. A fuller explanation and preventive measures will be discussed in the next News and Views.) **Microsoft Backup** is another utility now incorporated in MS-DOS 6.0. It is actually a licensed version of Norton Backup. It provides basic backup capabilities except that it does not support backups to tape drives. **Mem-Maker** (in tandem with EMM386.SYS) is a utility that attempts to optimize a pc's memory configuration in order to make as much of the lower 640K available as possible. (I say "attempts to" because how successful it is depends on several factors. Some testers in ISD gained significant memory back with Mem-Maker, while others saw no difference.) **Micro-**

soft Anti-Virus (actually a licensed version of Central Point's Anti-Virus program) provides typical virus scanning capabilities. There are both DOS and Windows versions included for the backup and anti-virus programs. These "built-in" utilities are functional but typically do not have the full functionality of comparative 3rd party programs.

There are a few other notable improvements in MS-DOS 6.0. The **Multiple Configuration Menu** allows users who routinely have to change and/or test multiple Config.Sys files to build a menu to select from various configurations at startup time. Pressing F5 before Config.Sys processing begins at startup bypasses Config.Sys and Autoexec.Bat processing, providing what Microsoft calls a "Clean Boot". (This would be helpful in situations where changes to Config.Sys or Autoexec.Bat cause incompatibilities that cause the boot process to fail or act strangely.) Pressing F8 before the booting process begins provides the ability to skip individual lines in Config.Sys. There is now a **NUMLOCK ON/OFF command** to place in the Autoexec.Bat file that sets the Numlock status at boot time. There is a new batch language command, "CHOICE", that prompts the user to make a choice in a batch program. There is a series of programs, called **AccessDos**, on the DOS 6.0 Supplemental Diskette for users that have various disabilities, such as limited use of one or both hands or a hearing loss. (The supplemental diskette does NOT come with the DOS 6.0 package, but can be ordered for just \$5.00 from Microsoft.)

To Upgrade or Not To Upgrade, That Is The Question.....

ISD is providing full support for MS-DOS 6.0, but at this time is NOT recommending an across-the-board upgrade for the State agencies. ISD has not experienced the problems reported in the press. If users/agencies have a need for some or all of the features outlined above, then upgrading is probably called for. If users/agencies already have 3rd party software in place that provide similar functions, or do not have a need for the new functionality of MS-DOS 6.0, then upgrading is not cost effective. If you have questions about MS-DOS 6.0, or would like to see a demo of the software, please contact Denny Knapp of End User Computing, at 444-2072.

Techtalk

Using @DSUM in 1-2-3

Do you use any 1-2-3 spreadsheets which use the @DSUM function? Does your worksheet calculate correctly in Release 2.x but the @DSUM formulas return ERR in 3.x? Do you need to use that spreadsheet in 1-2-3 Release 3.x? If so, please read on...

For the @DSUM function to work properly, there are certain rules pertaining to spreadsheet layout that you are supposed to observe. When Release 2.x was written, it was written so that you didn't necessarily have to observe all of the rules for setting up your database properly, but the @DSUM function still worked fine. Release 3.x, on the other hand, isn't as forgiving. You do have to follow the rules for the @DSUM function to work properly.

First, check to make sure that all of your headings are text. Numerical headings will cause the @DSUM functions to work improperly. If you need to, you can place an apostrophe (') before the numerical heading to change it to a text format. Second, check to make sure that your first data row after the headings is not blank. The first row must contain data, however, you may have blank rows throughout the rest of your database. This holds true for all releases of 3.x as well as 1-2-3 for Windows.

If you have any questions concerning the @DSUM function or Lotus 1-2-3, please call Irv Vavruska at 444-2858 or Jerry Kozak at 444-2907, both from End User Computing.

First Look - Lotus Improv for Windows 2.0

First Looks is a new feature of *News and Views*. This month ISD evaluated Lotus Improv for Windows 2.0. ISD will not be formally recommending or supporting Improv, but we are sharing our findings of the product in this article.

Lotus Improv for Windows is a sophisticated tool for viewing and analyzing information in a radically new way.

As stated in the April 1993 PC World, "... a traditional spreadsheet model resembles ADM - LASER_1ADM1ID.PRSge the bricks without tearing down the wall. To understand Improv, you might not want to think of it as a spreadsheet at all. Instead, consider it a powerful, flexible analytical tool." Improv makes it easy for you to reorganize the data in your worksheet in ways you may not have originally planned for when you first created the sheet.

		1993	1994	1993	1994
		Jan	Feb	Mar	Apr
Sales	ABC Corp	345	676	412	498
	XYZ Co	301	502	359	434
Costs	ABC Corp	356	364	366	401
	XYZ Co	310	344	318	349
Profit	ABC Corp	11	182	47	97
	XYZ Co	9	168	41	85

You can switch from this view...

Simply dragging the category tiles, which appear in the corners of the screen, to a different location changes the spreadsheet structure completely. When you want to rearrange your data in the spreadsheet, you just drag and drop the gray tiles with your mouse.

		1993	1994	1993	1994
		Jan	Feb	Mar	Apr
Sales	ABC Corp	345	676	412	550
	XYZ Co	301	502	359	512
Costs	ABC Corp	356	364	366	345
	XYZ Co	310	344	318	404
Profit	ABC Corp	11	182	47	206
	XYZ Co	9	168	41	109
Sales	ABC Corp	345	676	412	473
	XYZ Co	301	502	359	447
Costs	ABC Corp	356	364	366	301
	XYZ Co	310	344	318	352
Profit	ABC Corp	11	182	47	178
	XYZ Co	9	168	41	95

...to this view, quickly and easily!

Improv can handle up to 12 categories per worksheet. Seeing the same data, but in a different view and format, is ideally suited for workgroups in which each member needs to see

a different angle of the data. As shown in the figures above, one person may want to view the data broken down differently than another. This can easily be done and the new view is seen instantly!

Improv formulas are easy to view, update, and understand, since they all reside at the bottom of screen in a section called the Formula Pane. This allows you to see all of the formulas that calculate a model. The formulas are written in an English-like language, so you can immediately understand what they do. When you click on a formula, the related cells in the worksheet become highlighted. When you click on a cell, the related formula in the formula pane becomes highlighted.

The presentation capabilities of Improv let you create presentations that can include linked worksheet data, text blocks, pictures, and charts. Improv offers all of the popular chart types, including 3-D versions. Charts remain linked to the data they represent, so updating a presentation is as easy as changing a cell value.

Improv can import .WK1 or .WK3 files from Lotus 1-2-3. Improv also retains many of the Wysiwyg formats during the import, however, graphs and macros are not converted. It is also possible to export an Improv worksheet to 1-2-3 format, but some formulas may not translate correctly.

There is no equivalent to 1-2-3's Solver or Backsolver, and there aren't any sophisticated database functions. Improv does not support any external database formats other than fixed delimited text files. There is no Parse command for irregularly delimited data.

Improv is not for everyone! In fact, some tasks which are done easily in 1-2-3 are more difficult in Improv. There will be a learning curve for anyone using Improv. There are many new concepts to learn, and the user will need to rethink how they design and create their worksheet. Many users who decide to use Improv may also keep their version of Lotus 1-2-3.

Depending on whether Improv or 1-2-3 is better suited for the job will determine which program you use. Windows 3.1 is a requirement for Improv to run.

If you would like to see a demo of Improv, please call Irv Vavruska at 444-2858 or Jerry Kozak at 444-2907. This is an on-screen demo which takes approximately ½ hour to complete.

Calendar of Events

June 9 - Data Processing Manager's Group (DPMG) meeting.

End Notes

Submit Articles

Although News and Views is published by ISD, it is not intended to contain just ISD information. We would like you to share your projects, technical developments, or any item of interest that you may have going. We are also looking for any ideas to add some levity to the newsletter, such as games, puzzles, trivia, etc. If you'd like to submit an article or tidbit to *News and Views* for publication, please send it to Brett Boutin, either through Zip Mail or regular mail. The following schedule provides dates that articles must be received by in order to be included in the issues listed below:

July Issue	06/18/93
August Issue	07/16/93
September Issue	08/20/93

ISD Network Assistance Center 444-2000

Have a problem? Need ISD assistance or support for any of your information processing needs--either voice or data? The central contact point is the ISD Network Assistance Center.

880 copies of this public document were printed at a cost of \$264.

Distribution costs are \$18.25.

26 copies of this document were distributed electronically at a no cost.

Editors: Brett Boutin & Dan Mossman

Training Information

All classes will be held in the Training Room in the basement of the Teachers' Retirement Building at 1500 6th Ave., unless another location is specified. Please note that these costs are subject to change each July 1st.

To enroll in a class, you must send or deadhead an enrollment application to the Department of Administration, ISD, Application Services Bureau, Mitchell Building, Helena, MT 59620-0113. If you have questions about enrollment, please call 444-3987. Once you enroll in a class, the full fee will be charged *UNLESS* you cancel at least three business days before the first day of class.

The classes available and their costs are as follows:

<u>Class Name</u>	<u>Cost</u>	<u>Length in Days</u>
*MVS\ESA - Differences from MVS\XA	FREE	1/4
*Introduction to TSO/SPF	\$ 80.00	1
*Introduction to JCL (Job Control Language)	320.00	4
*Introduction to CICS Programming	**	5
*Introduction to IDMS Database Programming	**	5
*IDMS ADS/Online	**	5
*Introduction to CULPRIT	240.00	3
*Subscribing in CULPRIT	FREE	1/4
*CULPRIT Programming for IDMS	160.00	2
*Introduction to SAS: Module 1	20.00	1/4
Module 2	20.00	1/4
Module 3	200.00	2 1/2
*Novell Network Administration	160.00	2
*Novell NetWare System Manager	**	3
*Novell NetWare Advanced System Manager	**	3
*Novell Netware Service & Support	**	5
*PC Maintenance		2
*Windows Purchase, Installation and Use Considerations	FREE	1/4
*Windows for the Technical Support Team	**	2
Beginning Microcomputer Skills	80.00	1
*Fundamentals of DOS	80.00	1
Intermediate DOS	80.00	1
*Introduction to Novell Networks	40.00	1/2
Introduction to Windows	80.00	1
CorelDraw	80.00	1
CA-Docview	FREE	1/4
Introduction to Quickref	FREE	1/4
Introduction to WordPerfect (5.0 or 5.1)	120.00	1 1/2
Advanced Features of WordPerfect 5.0	120.00	1 1/2
*WordPerfect (5.0 or 5.1) Complex Document Functions	40.00	1/2
*More WordPerfect (5.0 or 5.1) Complex Document Functions	40.00	1/2
*WordPerfect 5.1 Tables	40.00	1/2
*WordPerfect 5.1 Columns and Math Functions	40.00	1/2
*WordPerfect 5.1 Graphics	80.00	1
*WordPerfect Merge and Sort Functions	40.00	1/2
*WordPerfect 5.1 Macros	80.00	1
*WordPerfect 5.1 Tips and Tricks	FREE	1/4

*Conversion from WordPerfect 5.0 to 5.1	FREE	¼
*Spreadsheet Design and Documentation	80.00	1
*Conversion from Lotus 1-2-3 Rel. 2.2 to Rel. 3.1	FREE	¼
Introduction to Lotus 1-2-3, (Release 2.3 or 3.1)	160.00	2
Intermediate Lotus 1-2-3, (Release 2.3 or 3.1)	80.00	1
*Lotus 1-2-3 WYSIWYG Features (Release 2.3 or 3.1)	40.00	½
*Lotus 1-2-3 Graphics (Release 2.3 or 3.1)	40.00	½
*Lotus 1-2-3, Release 3.1, 3-Dimensional Spreadsheets	40.00	½
*Lotus 1-2-3 Printing (Release 2.3 or 3.1)	40.00	½
Lotus 1-2-3 for Windows Conversion	FREE	¼
Freelance for Windows	80.00	1
Freelance for Windows - Conversion	FREE	¼
*Lotus 1-2-3 Macros (Release 2.2, 2.3, or 3.1)	160.00	2
*Introduction to Lotus 1-2-3 Database Features	160.00	2
Introduction to PFS:Professional File, Ver. 2.0	80.00	1
Micro Database Concepts and Design	80.00	1
Introduction to R:Base, Release 3.1	200.00	2½
*Advanced R:Base Release 3.1	160.00	2
*R:Base Query and Reports (Rel. 3.1)	80.00	1
*R:Base Views (Rel. 3.1)	FREE	¼
*Intermediate R:Base (Rel. 3.1)	160.00	2
State Telephone Training	FREE	¼
*Orientation to State's Computer Center	FREE	¼
Introduction to IBM's Library Reader	FREE	¼

* This class is not scheduled during the time covered in this issue.

Training Calendar

Data Network/Mainframe Classes

June 3 a.m.	CA-Docview
June 10 p.m.	Introduction to IBM Library Reader
June 10 a.m.	Introduction to Quick-ref
July 1 a.m.	Introduction to Quick-ref/Docview
August 23 p.m.	Intro. to IBM Library Reader
August 9 a.m.	Introduction to Quick-ref/Docview

Microcomputer Classes

June 22 a.m.	Freelance for Windows Conversion
June 23	Freelance for Windows
July 28	Introduction to PFS
August 3	Intermediate DOS
August 17 & 18	PC Maintenance
August 24	CorelDraw
August 26	Lotus Freelance
August 31	Introduction to Windows

Word Processing Classes

July 29, July 30 a.m.	Introduction to WordPerfect (5.0 or 5.1)
August 10 & 11	Advanced Features of WordPerfect

Spreadsheet Classes

July 7, July 8	Introduction to Lotus 1-2-3 (Release 2.3 or 3.1)
August 5	Intermediate Lotus 1-2-3 (Release 2.3 or 3.1)

Database Classes

July 13	Micro Database Concepts & Design
July 14, 15, 16 a.m.	Introduction to R:Base

Data Network/Mainframe Classes

INTRODUCTION TO I.B.M.'s LIBRARY READER: presented by Denny Knapp of the Application Services Bureau

DATES & TIMES: June 10, 1993 9:00 a.m. to 11:00 a.m.
August 23, 1993 1:00 p.m. to 3:00 p.m.

PREREQUISITE: None

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This free class will provide an introduction to the I.B.M. Online Library Reader software soon to be made available on the State personal computer network. Library Reader provides the ability to access, on-line from your workstation, the I.B.M. mainframe hardware and software manuals. This will greatly reduce the need for hard copy mainframe manuals. Library Reader provides several advanced capabilities such as indexed or approximate searches, hypertext linking, logical grouping of manuals into "bookshelves", user entered "margin notes", and much, much more. This session will have some hands-on work so class sizes will be limited.

INTRODUCTION TO QUICK-REF/DOCVIEW: presented by Dave Howse of the Application Services Bureau

DATE: July 1, 1993
August 9, 1993

TIME: 9:00 a.m. to 11:00 a.m.

PREREQUISITE: Working knowledge of TSO/SPF

LOCATION: Basement of the Teachers Retirement Bldg. at 1500 6th Ave.

This class is designed to introduce the QUICK-REF and the CA-DOCVIEW system to mainframe users. QUICK-REF is a "pop-up" quick reference tool for ISPF users. It provides rapid access to a variety of reference information, without forcing the ISPF user to interrupt their current session. The type of information provided includes, but is not limited to, the following: MVS JCL syntax, Assembler Language syntax, MVS messages and codes, TSO command syntax, MVS reference summary, TSO Clist syntax, VTAM messages, JES2 syntax, DASD free space info, CICS messages and codes, COBOL syntax, and various independent software vendors messages. Participants will go through the fundamentals of using QUICK-REF in a real-time, hands-on session.

CA-DOCVIEW contains reference information on products supplied by Computer Associates, such as IDMS, Tape Management System, and ACF2. CA-DOCVIEW is available to mainframe users from the U option of ISPF. CA-DOCVIEW provides online access to information normally available only in hard-copy manuals. Participants will go through the fundamentals of using CA-DOCVIEW in a real-time, hands-on session.

Microcomputer Classes

PC MAINTENANCE:

DATE: August 17 and 18, 1993
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Working knowledge of DOS
LOCATION: To be announced

This course is designed to give participants insight into normal routine maintenance of the personal computer. Topics covered will be internal diagnostics, add-on cards, memory management, systems upgrades, hard disk performance tips, and routine troubleshooting techniques.

INTERMEDIATE DOS:

DATE: August 3, 1993
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Fundamentals of DOS or equivalent
LOCATION: To be announced

This class is designed to follow the "Fundamentals of DOS" class and to give the user a better understanding of and increased ability to use DOS. It is not designed for programmers and does not cover all the advanced features of the operating system. The following topics are covered:

- ATTRIB
- Batch File Creation
 - EDLIN
 - Batch file commands
- DISKCOMP
- Filters (FIND, MORE)
- JOIN
- LABEL
- MODE
- REPLACE
- SELECT
- XCOPY

INTRODUCTION TO WINDOWS:

DATE: August 31, 1993
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Beginning Microcomputer Skills or three months of daily microcomputer use
LOCATION: To be announced

This course is a general introduction to Windows. It will cover the basics and show how Windows makes other applications easier to use and more productive. Topics will include:

- What are Windows - multi-tasking and task switching
- Using DOS applications
- Using Windows accessories and features
- Screen, window and menu navigation
- Window sizing and movement
- Customization

This course will not include training for system administrators and programmers. It will not cover Windows installation, maintenance or advanced features such as use for programming and file/directory management.

INTRODUCTION TO PFS:PROFESSIONAL FILE, VERSION 2.0:

DATE: July 28, 1993
TIME: 8:30 am to 4:30 pm
PREREQUISITE: Beginning Microcomputer Skills
LOCATION: To be announced

The PFS:Professional File software is an easy-to-use file management system. This course will give participants hands-on experience creating databases--demonstrating the flexibility of this software in storing, retrieving, and updating a large amount of related information.

LOTUS FREELANCE:

DATE: August 26, 1993
TIME: 8:30 am to 4:30 pm
PREREQUISITE: Beginning Microcomputer Skills
LOCATION: To be announced

This class will give participants hands-on experience using Freelance to create many types of figures, drawings and graphs. Students will learn to use Freelance's symbol library and freehand drawing capabilities and to import data from Lotus 1-2-3 spreadsheets to create a publication-quality chart or graph.

FREELANCE GRAPHICS FOR WINDOWS CONVERSION: presented by Jerry Kozak of the Application Services Bureau

DATE: June 22, 1993
TIME: 9:00 a.m. to 11:00 a.m.
PREREQUISITE:
LOCATION: Basement of Teachers' Retirement Building

This class will introduce users to Freelance for Windows. Students will obtain information regarding its features, abilities, and procedures for converting Freelance for Dos files.

CORELDRAW 3.0 FOR WINDOWS:

DATE: August 24, 1993
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Familiarity with DOS and Windows
LOCATION: To be announced

This class will give new users an overview of CorelDraw its features and abilities. CorelDraw is made up of six components: CorelPHOTO-PAINT, CorelMOSAIC, CorelTRACE, CorelDRAW, Corel-CHART, and CorelSHOW. Students will learn to create and edit graphic figures, boxes, lines, charts and photographic images through hands on exercise. These abilities will then be combined to produce a basic slide show. This course is tailored for the beginning windows graphic user. Additional and more advanced classes will be scheduled for each component of the Corel system.

Word Processing Classes

INTRODUCTION TO WORDPERFECT:

DATES: July 29 and 30, 1993
TIMES: 8:30 a.m. to 3:30 p.m. on first day
8:30 a.m. to noon on second day
PREREQUISITE: Beginning Microcomputer Skills or equivalent
LOCATION: To be announced

This class is a generic introduction to WordPerfect for new users of release 5.0 or 5.1. Experience with WordPerfect is not necessary. Participants will go through the fundamentals of creating, formatting, editing and printing documents. Some advanced features will also be covered, including checking spelling, finding a word or phrase, marking blocks of text, moving text and listing/retrieving document files.

ADVANCED FEATURES OF WORDPERFECT 5.0:

DATE: August 10 and 11, 1993
TIME: 8:30 a.m. to 4:30 p.m. on first day
8:30 a.m. to noon on second day
PREREQUISITE: Introduction to WordPerfect 5.0 or equivalent
LOCATION: To be announced

For those already using WordPerfect 5.0, the advanced class will cover footnotes, column generation, sorting capabilities, dual document editing, font changes within a document, creation of style sheets and master documents, keyboard layout, the compose function and graphics.

Spreadsheet Classes

INTRODUCTION TO LOTUS 1-2-3, RELEASE 2.4:

DATES: July 7 & 8, 1993
TIMES: 8:30 a.m. to 4:30 p.m. each day
PREREQUISITE: Beginning Microcomputer Skills
LOCATION: To be announced

This class is a generic introduction to Lotus 1-2-3 for persons with little or no Lotus experience. It will consist of instructions and hands-on practice, with lab time available for building spreadsheets of the participants' choosing.

The class will cover design, creation, printing and editing of spreadsheets. Additional topics will include selected graphic features, the use of formulae to connect spreadsheets, and the opening of multiple files at the same time. Students will learn about new WYSIWYG (What You See Is What You Get) features of Releases 2.3 and 3.1 such as enhanced printing of spreadsheets and graphs.

INTERMEDIATE LOTUS 1-2-3, RELEASE 2.3 OR 3.1:

DATE: Aug. 5, 1993
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Introduction to Lotus 1-2-3
LOCATION: To be announced

This course is intended for users of Release 2.3, 3.1 or 3.1+. It covers intermediate features of Lotus 1-2-3 for those who are familiar with Lotus basics. It consists of instructions and hands-on practice, with lab time available for building spreadsheets of the students' choosing.

The following topics will be presented:

- @ functions
- Date and time formats and functions
- Ranges--naming, hiding and protecting ranges; using range commands
- Global defaults
- Titles, windows and text editing

Time permitting, the following topics will be covered with some hands-on practice:

- Selected file functions and file linking
- Magellan Viewer Addin (available in Releases 2.3 and 3.1+ only)
- Auditor Addin (available in Releases 2.3 and 3.1+ only)

Database Classes

MICRO DATABASE CONCEPTS AND DESIGN:

DATE: July 20, 1993
TIME: 8:30 a.m. to 4:30 p.m.
PREREQUISITE: Beginning Microcomputer Skills
LOCATION: To be announced

This class is designed to give participants a preliminary understanding of what a relational database is and how it compares to other products like Lotus 1-2-3 and PFS:Professional File. The class teaches database design techniques and is a prerequisite for other database classes offered by ISD.

INTRODUCTION TO R:BASE, RELEASE 3.1:

DATES: July 21, 22 and 23, 1993
TIMES: 8:30 a.m. to 4:30 p.m. on first and second days
8:30 a.m. to noon on third day
PREREQUISITE: Beginning Microcomputer Skills, Micro Database Concepts and Design and Fundamentals of DOS
LOCATION: To be announced

This class will give participants hands-on experience creating a database and developing a simple application with R:Base 3.1. The application will include database updates, queries, and simple form and report generation. The R:Base menu system will be used to develop the application. This class will not cover the R:Base command mode or programming other than menu system application development.

ISD CLASS ENROLLMENT APPLICATION
COMPLETE THIS APPLICATION IN FULL AND
RETURN IT ONE WEEK PRIOR TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc. Sec. Number (for P/P/P): _____

Agency & Division: _____ / _____

Mailing Address: _____

Phone: _____

How have you met the required prerequisites for this course? Explain, giving the class(es) taken, tutorial(s) completed, and/or experience.

BILLING INFORMATION/AUTHORIZATION MANDATORY

Responsibility Center: _____

Authorized Signature: _____

FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS
CANCELLATION IS MADE THREE BUSINESS DAYS BEFORE
THE START DATE OF THE CLASS.

SEND COMPLETED FORM TO:
ISD APPLICATION SERVICES BUREAU, DEPARTMENT OF ADMINISTRATION

DEPARTMENT OF ADMINISTRATION
INFORMATION SERVICES DIVISION
ROOM 221, MITCHELL BLDG
PO BOX 200113
HELENA MT 59620-0113

HAROLD CHAMBERS
MONTANA STATE LIBRARY
REFERENCE & INFO SERVICES
1515 E SIXTH
HELENA MT 59620

DEADHEAD